



Chapter Ten

PROJECT DEVELOPMENT

BUREAU OF LOCAL ROADS AND STREETS MANUAL

Chapter Ten

PROJECT DEVELOPMENT – MFT and State Funds

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10-1 ENVIRONMENTAL ISSUES

10-1.01 General

During project development, it is important for the designer to understand the environmental issues that may impact the project. Environmental review can be a significant portion of project development and project schedules can be affected. This Section presents information that has a general application to all local agency projects that are not Federally funded when addressing environmental impacts. This includes environmental documentation, coordination, and general environmental guidance procedures for these types of projects (e.g., MFT-funded, TBP-funded, State-funded projects).

For additional information on environmental procedures, see Chapter 20.

10-1.02 Integrated Environmental Survey Process

BDE has developed a process whereby BDE is responsible for performing environmental surveys on various projects, including certain local agency projects. Cultural surveys will be performed on local MFT- and State-funded projects. Cultural survey requests should be submitted if the project involves the acquisition of additional right-of-way or temporary or permanent easements. The local agency will coordinate the biological resource review directly with IDNR for all non-Federally funded projects. This will be accomplished by completing an Agency Action Report (AAR) and submitting the AAR to IDNR. See Section 20-2 for the environmental survey procedure.

10-1.03 Section 6(f) Land Conversion Request

10-1.03(a) Introduction

Special procedures are required when lands that have Land and Water Conservation (LAWCON) funds involved in their purchase or development will be used for highway purposes. Section 10-1.03 discusses these procedures. Similar procedures may be required where lands are involved that have been improved or developed with funds under *Section 1010 of the Urban Park and Recreation Recovery Act of 1978* (16 USC 2509) or the *Illinois Open Land Trust Act* (525 ILCS 33). Specific procedural requirements will be addressed on a case-by-case basis.

10-1.03(b) Legal Authority

16 USC 4601-8(f)(3), commonly known as Section 6(f) of the *Land and Water Conservation Fund Act of 1965* (Public Law 88-578), requires that:

... No property acquired or developed with assistance under this section shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accordance with the then existing comprehensive Statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

“Secretary” refers to the Secretary of the US Department of Interior. The authority to approve Section 6(f) land conversions has been delegated to the Regional Directors of the National Park Service (NPS).

10-1.03(c) Applicability

Section 6(f) procedures must be followed for all projects, regardless of project type or funding source, which involve the taking of property acquired or developed with LAWCON funds.

10-1.03(d) Procedures

Use the following procedures when processing Section 6(f) land conversion requests:

1. Coordination. Early and ongoing coordination with the official having jurisdiction over the 6(f) land, the Illinois Department of Natural Resources (IDNR), and the NPS Regional Director should be diligently pursued.
2. Report Requirements. When a project proposes use of land in which LAWCON funds have been involved in its purchase or development, Section 6(f) requires the approval of the Secretary of the Interior for the conversion of the land to other than public outdoor recreational use. Section 6(f) does not otherwise require a special report.
3. Conversion Request. Requests to convert LAWCON-assisted properties in whole or in part to other than public outdoor recreational uses must be submitted through the IDNR to the appropriate NPS Field Director in writing. NPS will consider the conversion request if the prerequisites described below have been met. As applicable, local agencies should submit a request for Section 6(f) land conversion approval to the IDNR Division of Grant Administration for submittal to the appropriate NPS Field Director. Formal review periods for conversion requests are not specified in the regulation. IDNR has advised that the typical time frame for NPS response to conversion requests is 60 to

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90 days. The conversion request should include information to address each of the following points:

Alternatives. All practical alternatives to the proposed conversion have been evaluated.

Value. The fair market value of the property to be converted has been established and the property proposed for substitution is of at least equal fair market value as established by an approved appraisal (prepared according to uniform Federal appraisal standards), excluding the value of structures or facilities that will not serve a recreational purpose.

Replacement Property. The property proposed for replacement is of reasonably equivalent usefulness and location as that being converted. Depending on the situation, and at the discretion of the NPS Field Director, the replacement property need not provide identical recreational experiences or be located at the same site, provided it is in a reasonable equivalent location. Generally, the replacement property should be administered by the same political jurisdiction as the converted property. For additional guidance on replacement property, see Section 26-3 of the *BDE Manual*.

4. Coordination. All necessary coordination with other Federal agencies has been satisfactorily accomplished.
5. Environmental Review. The guidelines for environmental evaluation have been satisfactorily completed and considered by NPS during its review of the proposed 6(f) action. Where the proposed conversion arises from another Federal action, final review of the local agency's proposal will not occur until the NPS Regional Office is assured that all environmental review requirements related to that other action have been met.
6. State Clearinghouse. If the proposed conversion and substitution constitute significant changes to the original LAWCON project, ensure that State intergovernmental clearinghouse review procedures have been met.
7. Statewide Comprehensive Outdoor Recreation Plan (SCORP). Ensure the proposed conversion and substitution are consistent with SCORP and/or equivalent recreational plans.

10-1.04 OSLAD Land Conversion Request

10-1.04(a) Legal Authority

The OSLAD program is a State-funded grant program authorized by the *Open Space Lands Acquisition and Development Act* (525 ILCS 35/1, et seq.). The compliance procedures for the OSLAD grant program are in the *Illinois Administrative Code* (17 Ill. Adm. Code 3025).

10-1.04(b) Applicability

Compliance procedures for proposed conversion of OSLAD-assisted lands are applicable to all projects proposing conversion regardless of project type or funding source.

10-1.04(c) Procedures

17 Ill. Adm. Code 3025 incorporates by reference essentially the same compliance procedures as required for the Land and Water Conservation Fund (LAWCON) grant program. However, because the Open Space Land Acquisition and Development (OSLAD) grant program is State-funded, concurrence of the National Park Service is not required for proposed conversion of OSLAD-assisted lands. Special procedures are required when lands that have OSLAD grant program funds involved in their purchase or development and will be converted to uses other than public outdoor recreational use. The following procedures apply:

1. Coordination. Early and ongoing coordination with the official having jurisdiction over the OSLAD-assisted land and the Illinois Department of Natural Resources (IDNR) should be diligently pursued.
2. Report Requirements. When a project proposes the use of land in which OSLAD funds have been involved in its purchase or development, the Director of IDNR must approve conversion of the land to other than public outdoor recreational use; however, a special report is not required.
3. Conversion Request. Requests to convert OSLAD-assisted properties in whole or in part to other than public outdoor recreational uses must be submitted to the IDNR in writing. IDNR will approve conversions only upon the substitution of replacement property having equal fair market value and comparable outdoor recreational usefulness, quality, and location. Local agencies should submit a request for OSLAD land conversion approval to the IDNR, Division of Grant Administration, as applicable. Formal review periods for conversion requests are not specified in the OSLAD regulation.

IDNR regulations do not specify information requirements for conversion requests. However, the information specified in the 6(f) requirements to support fair market value and comparable outdoor recreational usefulness, quality, and location should serve as a guide for the items to address in preparing OSLAD conversion requests; see Section 10-1.03.

10-1.05 Wetland Compliance Procedures**10-1.05(a) Legal Authority**

The *Interagency Wetland Policy Act of 1989* (20 ILCS 830) and the implementing rules (17 Ill. Adm. Code 1090) address the State policy for wetlands. IDOT and IDNR have adopted a Wetlands Action Plan to establish compliance with the goals of the *Interagency Wetland Policy Act of 1989* and the implementing rules.

10-1.05(b) Applicability

The *Interagency Wetland Policy Act* and implementing rules apply to all State and IDOT pass-through funded projects involving possible wetland impacts. This includes local agency, Federal, Motor Fuel Tax (MFT), and State-funded projects.

During project development, special studies and coordination are required when the action may involve possible wetland impacts. This Section provides reporting and processing requirements for the potential impacts related to wetlands to comply with the *Act* and rules. Submit all required documents for processing by the local agency to the district. The district will forward the necessary documents to the Central BLRS for coordination with BDE and IDNR as necessary.

10-1.05(c) Definitions

The following definitions apply:

1. Adverse Impact. Any land management activity, construction, or related activity that directly or indirectly reduces the size of a wetland or impairs a wetland's functional value.
2. Compensation Ratios. This refers to replacement area, quantified wetland functions, or dollar value when compared to the wetland area that is adversely impacted. The procedure for computing wetland compensation requirements is to multiply the appropriate wetland compensation ratio by the unit of compensation (i.e., replacement area, function, monetary contribution).
3. Destruction. An adverse wetland impact that does not meet the criteria to be defined as a programmatic action and that causes either:
 - a. the removal or loss of 2 acres (0.8 hectare) or more of wetland vegetation; or
 - b. the alteration of pre-existing hydrology or soils of more than 0.5 acre (0.2 hectare) of wetland for more than 12 months. This includes, but is not limited to, the placement of dredge or fill material into a wetland, the drainage of a wetland, filling in of a wetland through sedimentation, etc.

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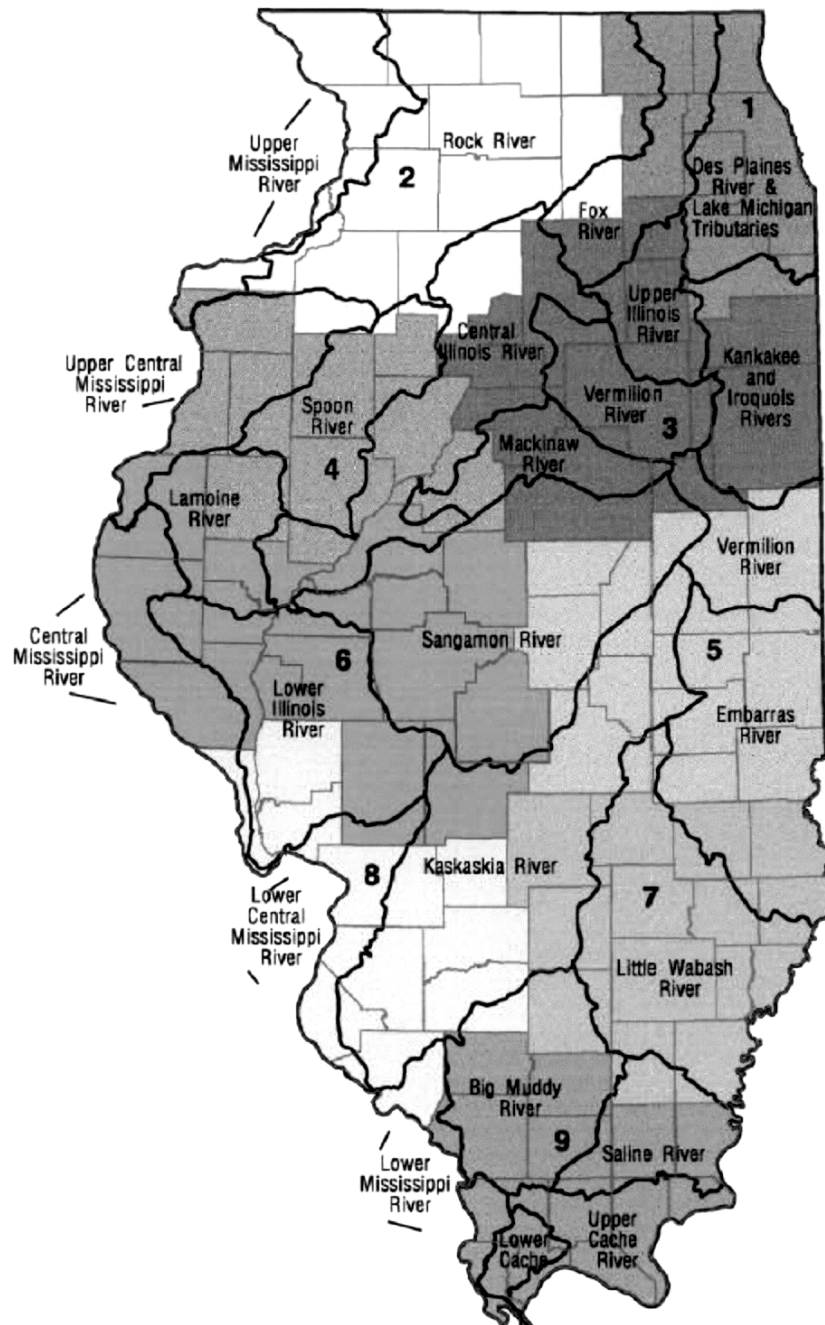
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4. Hydrologic Unit. The drainage basin of a river or a stream as identified in Figure 10-1A.
 5. Minimal Alteration. An adverse wetland impact that:
 - c. meets the criteria to be defined as a programmatic review action, or
 - d. causes the removal or loss of 0.5 acre (0.2 hectare) or less of wetland vegetation but that does not alter the pre-existing hydrology of the wetland for a period of more than 12 months (a temporary impact).
 6. Off-Site. A wetland compensation area located within the same Hydrologic Unit boundary, but more than 1 mile (1.6 kilometers) from the proposed project limits for which the wetland compensation is required.
 7. On-Site. When a wetland compensation area is located within the same Hydrologic Unit boundary, as shown in Figure 10-1A, and within 1 mile (1.6 kilometer) of the proposed project limits for which the wetland compensation is required.
 8. Out-of-Basin. When a wetland compensation area is located outside the Hydrologic Unit boundary that includes the site of the proposed project for which the wetland compensation is required.
 9. Programmatic Review Actions. Programmatic review actions involve impacts to wetlands where construction is within the existing right-of-way or in new right-of-way that is contiguous to the existing right-of-way. For projects that qualify as programmatic review actions, project-specific coordination with IDNR for wetland compliance will generally not be required. In these cases, BDE will determine replacement ratios, approve any compensation plans, and coordinate with IDNR, as necessary. The local agency is responsible for maintaining complete files on all actions processed under this programmatic procedure. These files will be made available for audit upon request.
 10. Replacement Area. The area of wetland compensation that is required. It is computed by multiplying the wetland area that is adversely impacted by the appropriate compensation ratio.
 11. Significant Alteration. An adverse wetland impact that does not meet the criteria to be defined as a programmatic action and that causes either:
 - e. the alteration of pre-existing hydrology or soils of 0.5 acre (0.2 hectare) or less of a wetland for more than 12 months. This includes, but is not limited to, the placement of dredge or fill material into a wetland, the drainage of a wetland, filling in of a wetland through sedimentation, etc; or

**Drainage Basins for the
Evaluation of Wetland Resources**
Displayed with County Boundaries and IDOT Districts



HYDROLOGIC UNITS – WETLAND ACTION PLAN

Figure 10-1A

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- f. the removal or loss of more than 0.5 acre (0.2 hectare) but less than 2 acres (0.8 hectare) of wetland vegetation but that does not alter the pre-existing hydrology of the wetland for a period of more than 12 months (a temporary impact).
- 12. Standard Review Action. Involves projects with unavoidable adverse wetlands impacts that do not qualify as programmatic review actions. Coordination will be required with IDNR on a project-by-project basis.
- 13. Value. A unit of measure (i.e., acres (hectares), wetland functions, or dollars) that is multiplied by the appropriate wetland compensation ratio to determine the amount of wetland compensation required.
- 14. Wetland Compensation. The required planning and implementation process that results in the replacement of wetland function and area to offset an adverse wetland impact, or providing funding for wetland research, acquisition, etc.
- 15. Wetland Creation. The establishment of a wetland where a wetland does not currently exist.
- 16. Wetland Delineation. Determining the boundary of a wetland area. The determination is based on the presence of three criteria:
 - g. a prevalence of hydrophytic vegetation,
 - h. hydric soils, and
 - i. wetland hydrology.

To accurately delineate a wetland, a person must have the ability to identify vascular plants to the species level (plant taxonomy), be able to identify soil types, and have at least a general knowledge of wetland hydrology.
- 17. Wetland Impact Evaluation (WIE) Form. An IDOT form that must be completed and submitted to the district for processing when it is determined that a project would impact wetlands. See Section 10-1.05(e) for more information.

10-1.05(d) Identification and Delineation of Wetlands

The local agency is responsible for the delineation and determination of possible wetland impacts for MFT- and State-funded projects. See Section 20-8 for the procedures for the delineation of wetlands for Federally funded projects.

The process for the identification and delineation of wetlands for local agency MFT- and State-funded projects should be undertaken at the earliest practical stage in the project planning process. The National Wetlands Inventory (NWI) maps and wetland maps produced by local jurisdictions will be used in determining the need to delineate and evaluate wetlands impacted by a construction project. The following applies:

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1. No Wetland Present. If the local agency determines that, based on a review of wetland maps and visual inspection of the site, there is no wetland present, additional investigations will not be required. The local agency will inform the district of this determination in writing.
2. Potential Wetland Impacts. Where there is a possibility for wetland impacts by a proposed project, field investigations will be conducted to verify the presence of wetlands and to delineate any wetlands that could be impacted by the project. The local agency may contact the appropriate District Office of the US Army Corps of Engineers to obtain a list of firms that are capable of providing wetland delineation services.

A hard copy of National Wetlands Inventory Maps for Illinois can be obtained from the:

Map Sales Coordinator,
Center for Governmental Studies,
Northern Illinois University.

NWI Digital Data can be obtained from the:

Administrator for Wetlands, Watershed and EMP Programs,
Office of Resource Conservation,
Illinois Department of Natural Resources.

10-1.05(e) Wetland Impact Evaluation (WIE)

After wetlands have been delineated in the project vicinity, it is necessary to identify any adverse impact the project will have on the wetlands.

Adverse wetland impacts are defined as any land management activity, construction, or related activity that directly or indirectly reduces the size of a wetland or impairs a wetland's functional value (e.g., absorbing, storing, and conveying peak flows from storms; improving water quality by serving as sedimentation and filtering basins and as natural biological treatment areas; protecting underground water resources; helping to recharge rivers, streams, and local or regional underground water supplies).

When considering adverse wetland impacts, the following actions should be taken, while giving due consideration to safety and appropriate design standards:

1. First Priority. Avoid the adverse wetland impacts.
2. Second Priority. Minimize the adverse wetland impacts.
3. Third Priority. Compensate for unavoidable adverse wetland impacts.

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The WIE form, which can be found on IDOT's website for environmental surveys, will document all information regarding any potential wetland impacts including alternatives for avoiding and minimizing adverse impacts. The WIE will include the following:

- information identifying the wetland sites affected and the relationship to the proposed action (including wetland delineation reports, forms, maps, and NWI maps for the project area);
- information describing the proposed construction affecting each individual wetland (e.g., placement of fill, excavation, draining, removal of vegetation) in sufficient detail to allow a thorough review of the potential adverse wetland impacts;
- anticipated starting and ending dates for the project, if known;
- indication of the total acreage (hectares) expected to be converted from wetland habitat to other uses; and
- a description of alternatives considered and an explanation of why there are no practical alternatives to the proposed action.

Submit all documents to the district. The district will forward the necessary documents to the Central BLRS. The Central BLRS will submit these documents to BDE. From the information contained in the WIE form, BDE will determine the amount of wetland compensation, generally based on the compensation ratios in Figure 10-1B.

Adverse Impact	On-Site	Off-Site	Out-of-Basin
Minimal Alteration	1.0:1*	1.5:1	2.0:1
	1.5:1**		
Significant Alteration	1.5:1	2.0:1	3.0:1
Destruction	2.5:1	4.0:1	5.5:1

* The 1.0:1 ratio applies to all other types of wetland vegetation, substrate, or wetland type except those wetlands that have woody vegetation.

** The 1.5:1 ratio applies if the vegetation of the adversely impacted wetland is woody.

WETLAND COMPENSATION RATIOS**Figure 10-1B**

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According to 17 Ill. Adm. Code, Sect. 1090.50(c)(8), the compensation ratio used to determine the amount of wetland compensation required is always 5.5:1 if the adversely impacted wetland has one or more of the following situations present:

- the presence of a State or Federally listed endangered and threatened species;
- the presence of essential habitat of a State or Federally listed endangered and threatened species;
- the presence of an Illinois Natural Inventory (INAI) Site, maintained and updated by IDNR; and/or
- a wetland that is comprised of a plant community that receives a floristic quality native index score of 20 or more and/or a native mean coefficient of conservatism of 4.0 or greater using the procedure described in the publication *Plants of the Chicago Region*.

10-1.05(f) Wetland Compensation Plan Development

After the amount of anticipated unavoidable adverse impacts has been established for a project, the compensation process can begin.

Adverse wetland impacts of less than 0.3 acre (0.12 hectare) per wetland may be accumulated for compensation in a larger compensation site or sites with the approval of BDE. IDNR will allow accumulation; however, the USACE may or may not allow accumulation. This decision should be reflected in the environmental documentation for the project.

For impacts equal to or greater than 0.3 acre (0.12 hectare), opportunities for on-site compensation must be considered before off-site compensation alternatives are proposed. Options that are off-site, but in-basin, must be considered before out-of-basin alternatives are proposed. The local agency may have the option of purchasing credits from an approved wetland mitigation bank rather than restoring or creating wetlands on or near the development site. A wetlands mitigation bank is a wetland area that has been restored, created, enhanced, or (in exceptional circumstances) preserved, which is then set aside to compensate for future conversions of wetlands for development activities. Use of wetland banks or other approved sources of pre-existing wetland credits may be proposed provided this sequencing requirement is satisfied.

A wetland compensation plan must be developed when some form of compensation is provided. Additional information can be found in the *BDE Manual*.

1. Pre-existing Wetland Credits. If all of the wetland compensation is from a wetland bank or an approved source of preexisting compensation credits, the Wetland Compensation Plan will contain the following information:

- project name, number, location, and description;
- name and address of responsible agency;

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- types, amounts, and locations of affected wetlands, including any drainage basins and watercourses involved;
- description of alternatives that would provide avoidance or minimization of adverse impacts to the wetland and, as applicable, the reasons for their rejection;
- reasons for proposing use of an approved wetland compensation account or other source of pre-existing wetland credits; and
- description of applicable compensation ratios, the amount and type of compensation credit to be provided, and the source of the credits, including location, current balances, and any pending changes.

2. Restoration, Enhancement, and/or Creation of Wetlands. If compensation will be provided through wetlands restoration, enhancement, and/or creation, the local agency should take the lead in locating a suitable compensation site, giving appropriate consideration to the effect of the applicable compensation ratios on the amount of compensation needed.

After the local agency has identified one or more potential compensation sites, it should submit information concerning the sites to the district for an assessment of the suitability of the site by BDE. An agency or applicant may request approval to use existing public lands for wetland compensation projects. IDNR will have the final approval on the use of existing public lands for this purpose. Once a site has been determined to be suitable for compensation, a Compensation Plan will be prepared by the local agency.

10-1.05(g) Conceptual Compensation Plan for the Creation of Wetlands

The local agency will first develop a Conceptual Compensation Plan. The conceptual plan should contain enough information to enable BDE or IDNR to concur in the proposed approach and the project's location prior to proceeding with its implementation. The Conceptual Plan includes:

- project name and number, location, and description;
- name and address of the responsible agency;
- summary statement and date of surveys;
- name, work address, email address, and phone numbers of persons conducting surveys;
- types and amounts of affected wetland, including drainage basins and watercourses involved;
- description of alternatives considered that would avoid or minimize the adverse impacts to the wetland and, as applicable, the reasons for their rejection;

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- description of the precise location of the proposed wetland replacement site (including a map, legal description, the distance from the impacted wetland, current land use, current vegetation, biological, hydrological, and soil characteristics);
- description of the proposed wetland compensation, including a clear statement of goals;
- description of wetland to be created, restored, acquired, compensation ratios to be applied, any research funding proposed in lieu of a component of the total compensation and, if use of pre-existing wetland credits is proposed as a component of the total compensation, the source of the credits, including current balances and pending changes;
- general description of the work (e.g., grading, planting, alteration of hydrology) proposed to establish compensation sites; and
- the names of the entities to assume long-term responsibility for compensation sites to be established.

The project environmental documentation should summarize the Conceptual Compensation Plan as concurred by IDNR.

10-1.05(h) Compensation Design Plan for the Creation of Wetlands

Once approval is given for the Wetland Compensation Plan, the local agency will prepare a detailed construction plan reflecting the proposed work for the creation of a new wetland. The local agency will provide BDE the opportunity to review the preliminary plans. BDE will have 2 weeks to comment.

The Compensation Design Plan will include the following items:

- a detailed site plan that includes the plant materials and methods to establish those plant materials, proposed contours of the wetland and surrounding buffer to be established, source of water, anticipated hydro-period of the proposed wetland and any water control structures, the watershed draining into the proposed wetland, and the relationship of the site to surrounding land uses;
- the operation, management, and maintenance plan for the site, including procedures to restrict further adverse impacts to the site (e.g., the use of buffer areas, restricting future construction within the wetland compensation area);
- a monitoring plan that evaluates the success and/or failure of the wetland establishment effort, including the use of measures to correct identified deficiencies or problems; and
- the anticipated starting and ending dates of the wetland compensation plan.

Projects should not proceed to letting until the compensation plan has been approved. Approval of the compensation plan is valid for 3 years.

10-1.05(i) Compensation Plan Implementation

The following procedures apply:

1. Use of Pre-existing Wetland Credits. Once the compensation plan has been approved, the local agency should proceed with acquiring or accomplishing the necessary accounting for the application of credits on the project. The credits must be provided/secured before the associated adverse wetland impacts occur.
2. Wetlands Creation. During the construction phase of the wetland compensation areas, the local agency will notify BDE when grading is complete before landscaping and again once landscaping is complete. BDE is to be notified when the inspection of the plant material is scheduled so that they may be present. At the end of the construction phase, the local agency will provide BDE a copy of the grading and planting plans of record.

10-1.05(j) Monitoring of Wetland Compensation Area

Monitoring and reporting procedures for wetland compensation areas will be as stated in the Wetland Compensation Plan. If BDE is monitoring the wetland compensation area, BDE will write and process the annual wetland monitoring report and send a copy of the report to the local agency. If BDE is not monitoring the wetland compensation area, 2 copies of the annual wetland monitoring report must be sent to the district by the local agency for transmittal to BDE.

10-1.05(k) Transfer of Wetland Compensation Area

When a local agency can transfer management responsibility for wetland compensation area without impacting the project operation, a written request will be submitted through IDOT to IDNR for approval. The request will contain information identifying the proposed recipient of the lands and an outline of the terms of the transfer agreement.

10-1.05(l) Wetland Banking

Wetland banking can provide more cost-effective mitigation and reduce uncertainty and delays for qualified projects. Successful mitigation is ensured because the wetlands can be functional in advance of project impacts. A wetland bank may be created through a formal agreement with IDNR. The value of a bank is determined by quantifying the wetland values restored or created in terms of credits as determined by BDE and IDNR. See the *BDE Manual* for more information on establishing a wetland bank.

10-1.06 Historic Preservation Compliance

10-1.06(a) Legal Authority

The following legal authority regulates or influences the policies and procedures for historic preservation compliance documentation:

- *Illinois Historic Preservation Act* (20 ILCS 3410),
- *Illinois State Agency Historic Resources Preservation Act* (20 ILCS 3420), and
- Rules for Review of State Agency Undertakings (17 Ill. Adm. Code Part 4180).

10-1.06(b) Applicability

This Section applies to all State-funded and State-approved projects that do not involve Federal funds or are not regulated by a Federal agency. Projects that are funded with MFT and State funds and do not require a Federal permit must comply with this Act. If a Federal permit is required, see Section 20-5 for historic preservation compliance.

10-1.06(c) Definitions

The following definitions apply to historic preservation:

1. Adverse Effect. The destruction or alteration of all or part of an historic resource; isolation or alteration of the surrounding environment of an historic resource; introduction of visual, audible, or atmospheric elements that are out of character with a historic resource or which alter its setting; neglect or improper utilization of an historic resource that results in its deterioration or destruction; or transfer or sale of an historic resource to any public or private entity without the inclusion of adequate conditions or restrictions regarding preservation, maintenance, or use.
2. Area of Potential Effects. The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties.
3. Comment. The written finding by the Director of the effect of a State undertaking on an historic resource.
4. Committee. The Historic Preservation Mediation Committee.
5. Director. The Director of the Illinois Historic Preservation Agency (IHPA), who serves as the State Historic Preservation Officer (SHPO), or his designee.
6. Historic Resource. Any property that is either publicly or privately held and which:

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- is listed in the National Register of Historic Places (National Register);
 - has been formally determined by the Director to be eligible for listing in the National Register as defined in Section 106 of Title 16 of the United States Code;
 - has been nominated by the Director and the Illinois Historic Sites Advisory Council for listing in the National Register;
 - meets one or more criteria for listing in the National Register, as determined by the Director; or
 - is listed in the Illinois Register of Historic Places.
7. Undertaking. Any project, activity, or program that can result in changes in the character or use of historic properties (if any historic property is located in the area of potential effects). The project, activity, or program must be under the direct or indirect jurisdiction of a State agency or licensed or assisted by a State agency. An undertaking includes, but is not limited to, an action that is:
- directly undertaken by a State agency;
 - supported in whole or in part through State contracts, grants, subsidies, loan guarantees, or any other form of direct funding assistance; or
 - carried out pursuant to a State lease, permit, license, certificate, approval, or other form of entitlement or permission.

10-1.06(d) Development

The following procedures will apply:

1. Resource Identification. As early as practical in the development of a proposed highway project, actions will be initiated by the local agency, in cooperation with the district and BDE, to identify historic resources within the area that the project may affect. These resources may be identified through a variety of sources (e.g., listings of National Register properties, eligible properties published by the Keeper of the National Register, local inventories of historic sites, coordination with IHPA or local historical groups, field investigations). An agreement, currently in effect with IHPA, allows BDE to issue an “in-house” clearance on historic properties for certain project types without the need for field surveys or project-specific coordination with IHPA. For these projects, the dated “Cleared for Letting” box on the PMA Cultural Resources screen constitutes the necessary documentation of compliance with State historic preservation requirements. For project types not covered by IHPA agreement, compliance must be established in accordance with the paragraphs that follow in this Section.

The Historic Bridge Survey (HBS) is the list of bridges in Illinois that are determined to have historic and/or engineering significance. The list was compiled under the terms of a Memorandum of Understanding (MOU) with the FHWA and the IHPA. Bridges not on

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the HBS are exempt from further review for historic significance. Bridges on the list but coded (**) are not eligible for inclusion on the National Register and are not subject to compliance with historic preservation requirements. However, if a project will involve the removal of a bridge coded (**), steps must be initiated to seek another suitable bridge to take its place on the HBS. A copy of the HBS is available from the district. The Illinois Structure Information System (ISIS) also denotes if a bridge is historically significant, based on the HBS.

2. Documentation. Upon completion of the actions for identification of historic resources, BDE will forward documentation of the results to IHPA. The documentation will include a brief description of the proposed project, a map, a description of the project location, current photographs of aboveground structures more than 50 years old, and, as appropriate, results of historic surveys and archaeological surveys and testing. The transmittal will indicate that the documentation is being submitted pursuant to the *Illinois State Agency Historic Resources Preservation Act* and implementing rules in 17 Ill. Adm. Code 4180.
3. Documentation Review. IHPA will review the documentation submitted and will advise BDE if additional information is needed. In accordance with 17 Ill. Adm. Code 4180.250(d), the project may proceed if IHPA fails to provide a response within 45 calendar days after the date of completed documentation (i.e., sufficient documentation to enable IHPA to apply the National Register eligibility criteria to any historic properties identified in the project area).
4. No Historic Resources Present. If IHPA determines that no historic resources exist within the area of potential effects, it may provide a response to that effect within 30 calendar days of the receipt of complete documentation for the project. Upon receipt of a written response from IHPA indicating that no historic resources exist in the area of potential effects, the local agency will be deemed to have met its compliance responsibilities for the project under the *Illinois State Agency Historic Resources Preservation Act*.
5. Findings on Effect. If IHPA determines that historic resources do exist within the area of potential effects, it may issue one of the following findings: no effect, no adverse effect, no adverse effect with conditions, or adverse effect. IHPA should issue its finding within 30 days of the receipt of complete documentation.
6. No Effect or No Adverse Effect. If IHPA issues a finding that the project will have no effect or no adverse effect on historic resources, upon receipt of the written finding, the local agency will be deemed to have fulfilled its compliance responsibilities for the project under the *Illinois State Agency Historic Resources Preservation Act*.
7. No Adverse Effect with Conditions. If the IHPA issues a no adverse effect finding with conditions, the local agency will be deemed to have fulfilled its compliance responsibilities for the project under the *Illinois State Agency Historic Resources Preservation Act* once it has met the stipulated conditions and has provided written

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notification to that effect to the district. The district will forward the compliance notification to IHPA through the Central BLRS and BDE.

8. Adverse Effect. If IHPA issues an adverse effect finding, or if the conditions stipulated for a finding of no adverse effect cannot be met, the local agency and IDOT will initiate consultation with IHPA to examine and discuss alternatives to avoid, minimize, or mitigate the identified adverse effects. (If any of the historic resources involved are listed in the Illinois Register of Historic Places, the requirements of the *Illinois Historic Preservation Act* will apply. Any specific actions necessary for compliance with that Act will be identified and addressed through the consultation with IHPA.) In addition to the local agency, IDOT, and IHPA, parties to the consultation may include other State agencies, local governments, local not-for-profit groups, and other parties of interest, as agreed to by the local agency, IDOT, and IHPA. As a part of the consultation process, the local agency, IDOT, and IHPA may agree to call a public information meeting to obtain comments concerning the project and its effects on historic resources. If it is agreed that a public information meeting will be held for the project, the district must provide notice of the meeting at least 30 calendar days before the scheduled meeting date. The notice will be placed in a newspaper of general circulation in the project area and include the following information:

- date, time, and place of meeting;
- purpose of the meeting;
- description of the project;
- description of the historic resource involved; and
- the procedure for offering written or oral testimony.

The district will designate an officer to conduct the public meeting and who will be responsible for recording the proceedings and providing a written transcript to IHPA within 7 calendar days after the public meeting.

9. Elimination of Adverse Effect. After consideration of the information collected during the consultation process, if the local agency, IDOT, and IHPA agree upon a feasible and prudent alternative that eliminates the adverse effect, the IHPA will provide written notification indicating that implementation of the agreed alternative will result in no adverse effect on historic resources. Upon receipt of the written confirmation of the agreed alternative from IHPA, the local agency will be deemed to have met its compliance responsibilities for the project under the *Illinois State Agency Historic Resources Preservation Act*. If the local agency subsequently determines that changes are necessary in the agreed alternative which could result in adverse effects on historic resources, consultation with IHPA must be reopened.
10. Memorandum of Agreement for Adverse Effect. After consideration of the information collected during the consultation process, if the local agency, IDOT, and IHPA agree on a feasible and prudent alternative that minimizes or mitigates adverse effects, or if they

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agree that there are no feasible and prudent alternatives to reduce the adverse effects, IHPA will prepare a Memorandum of Agreement (MOA) describing the alternative or stating the finding. IDOT and IHPA will be the principal signatories to the MOA. Other consulting parties will have the opportunity to concur with the MOA if they will be responsible for carrying out any of the terms of the agreement. Upon execution of the MOA and fulfillment of its terms, the local agency will be deemed to have met its compliance responsibilities for the project under the *Illinois State Agency Historic Resources Preservation Act*.

11. Failure to Execute MOA. If the local agency, IDOT, and IHPA fail to agree upon the existence of a feasible and prudent alternative and cannot execute a MOA, see Section 26-5 of the *BDE Manual* for guidance.

10-1.07 Threatened and Endangered Species/Natural Areas Review

10-1.07(a) Legal Authority

The *Illinois Natural Areas Preservation Act* (525 ILCS 30/17), Section 11b of the *Illinois Endangered Species Protection Act* (520 ILCS 10/11), and the implementing rules (17 Ill. Adm. Code 1075) requires consultation with IDNR.

10-1.07(b) Applicability

The above *Acts* apply to all actions funded or authorized by State and local agencies. Therefore, all projects funded with MFT, State, or Federal funds must comply with the provisions of these *Acts* and implementing rules.

10-1.07(c) Definitions

The following definitions apply:

1. Action. Construction, land management, or other activities that are authorized, funded, or performed in whole or in part by agencies of State and local governments and that will result in a change to the existing environmental conditions or may affect listed threatened or endangered species or their essential habitat or Natural Areas.
2. Adverse Impact. A direct or indirect alteration of the physical or biological features of the air, land, or water that may affect the survival, reproduction, or recovery of a listed species, or that may diminish the viability of a Natural Area.
3. Agency Action Report (AAR). A report submitted to IDNR for a proposed action requiring consultation. The information required to be submitted will be sufficient to

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- determine the presence or absence of a threatened or endangered species, or Natural Area in the vicinity of the proposed action.
4. Biological Opinion. The component of the Detailed Action Report prepared by IDNR when a valid record of an occurrence for a threatened or endangered species or Natural Area exists within the vicinity of a proposed action. This opinion will conclude whether the action will jeopardize the listed species present, destroy, or adversely modify their essential habitat, or adversely modify a Natural Area.
 5. Cumulative Effects. Direct and indirect effects of a proposed action together with the identifiable effects of actions that are interrelated or interdependent with the action. Indirect effects are those that are caused by the action but are later in time or farther in distance. Interrelated actions are those that are a part of a larger action. Interdependent actions are those that have independent utility apart from the action.
 6. Detailed Action Report. A written report that is prepared by an agency when a threatened or endangered species or Natural Area has been identified within the vicinity of a proposed action. Ensure the report contains sufficient information to make a judgment regarding the potential adverse impacts to a listed species or its essential habitat or a Natural Area.
 7. Essential Habitat. The physical and biological environment that is required to maintain viable populations of a listed species to ensure the survival and recovery of that species.
 8. Jeopardize. To engage in an action that would reduce the likelihood of the survival or recovery of a listed species or would result in the destruction or adverse modification of the essential habitat of a listed species or which would result in the destruction or adverse modification of a Natural Area.
 9. Listed Species. Any species of plant or animal that has been listed as threatened or endangered by the Illinois Endangered Species Protection Board or the United States Fish and Wildlife Service (USFWS).
 10. Natural Area. Any area of land in public or private ownership that is registered under the *Illinois Natural Areas Preservation Act* 525 ILCS 30 or is identified in the Illinois Natural Areas Inventory.
 11. Take. In reference to animals and animal products, to harm, hunt, shoot, pursue, lure, wound, kill, destroy, harass, gig, spear, ensnare, trap, capture, collect, or to attempt to engage in such conduct. In reference to plants and plant products, to collect, pick, cut, dig up, kill, destroy, bury, crush, or harm in any manner.
 12. Vicinity. The area surrounding the action, as determined by the life history requirements of the species of concern or proximity to a Natural Area.

10-1.07(d) Pre-Screening for Threatened and Endangered Species/Natural Areas

This procedure applies to MFT- and State-funded projects. For pre-screening for Federal projects see Section 20-9. For projects meeting the following applicability criteria, the local agency should submit an Agency Action Report (AAR) available from IDNR, Division of Natural Resource Review, and coordinate directly with IDNR:

- where the project involves acquisition of additional right-of-way or easements (temporary or permanent), or construction activities outside the existing right-of-way;
- where the project requires a drainage structure runaround or any in-stream work (i.e., any work or other activity within the stream banks that modifies or otherwise affects the streambed or stream banks); or
- if the project potentially affects a recognized Illinois Natural Areas Inventory site or Illinois-dedicated Nature Preserve, a wetland, or a location where a State- or Federal-listed species is known to occur.

The form can be found at IDNR's website. The AAR will indicate the location of the proposed project and will include a map delineating the project boundaries. IDNR will provide one of the following responses:

1. If no threatened or endangered species or Illinois Natural Area Inventory sites are known to occur and fieldwork is not recommended, IDNR will sign and date the AAR and return it to the local agency. This will complete consultation for State threatened and endangered species/Natural Area requirements. If the project involves other resource concerns requiring further IDNR review, the IDNR will re-screen the project against the Natural Heritage Database prior to any final action confirming satisfactory disposition of the other resource issues. The IDNR sign-off is valid for 3 years from the initial signature date on the AAR or from the date of final confirmation from IDNR on resolution of other resource concerns, if applicable. Before a project is advertised for a bid letting, the IDNR screening must be renewed if more than 3 years have elapsed since the last update on the screen or the project scope has changed. If the 3-year time period has elapsed, the local agency should request to update the AAR by sending a copy of the original AAR with appropriate attachments (i.e. any topographic maps and/or GIS maps) directly to IDNR. A copy of the renewed AAR should be sent to the district after it is approved by IDNR.
2. If listed threatened or endangered species or Illinois Natural Area Inventory sites are known to occur within the vicinity of the proposed action, IDNR will make this information available to the local agency. IDNR also will provide recommendations on the need for further surveys and studies.

IDNR should respond within 30 days. However, a late response does not terminate the process or otherwise authorize the action to proceed.

10-1.07(e) Detailed Action Report (DAR)

The following procedures will apply:

1. Determination of Need. IDNR will request the submission of a Detailed Action Report (DAR) if a protected resource is present or if insufficient information is available to determine the probability or severity of potential adverse impacts to the resources.
2. Preparation of the Detailed Action Report. When a DAR is required, it is the responsibility of the local agency to prepare the Report. The DAR typically will include the following components:
 - the name and address of the contact person;
 - a description of the proposed action, its location (including a map) and purpose and, if available, anticipated dates for beginning and completing construction;
 - an analysis of the effects of the action on any Natural Area present and on listed species (in terms of individuals and populations) and habitat required for their survival and propagation, including consideration of cumulative effects; and
 - a discussion of any alternatives considered for the proposed action.

The DAR may include the following additional components when necessary to respond to specific issues or concerns regarding the listed species:

- results of an on-site inspection of the area affected by the action to determine if the listed or proposed species are present or occur seasonally;
 - the views of recognized experts on species involved; and
 - a review of literature and other pertinent information on species potentially involved with the action.
3. Processing of the Detailed Action Report. The local agency will transmit the completed DAR to IDNR for formulation of a Biological Opinion. The Biological Opinion will address whether the action, taken with its cumulative effects, will jeopardize the listed species present or have an adverse impact on its essential habitat or cause adverse modification of a Natural Area.
Within 60 days of the date it receives the DAR, IDNR will provide its Biological Opinion to the local agency. The Biological Opinion will result in one of the following findings:
 - the action may promote the conservation of a listed species or its essential habitat or enhance the protection of a Natural Area, in which case the consultation process for endangered species/Natural Areas is concluded;
 - the action is not likely to jeopardize a listed species or its essential habitat or cause adverse modification of a Natural Area, in which case the consultation process for endangered species/Natural Areas is concluded; or

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- the proposed action is likely to jeopardize a listed species or its essential habitat or cause adverse modification of a Natural Area, in which case the consultation process will continue. In this case, IDNR generally will include recommendations in the Biological Opinion on how the impacts to the listed species/Natural Area could be avoided or minimized.
4. Consultation. If the Biological Opinion concludes that an action is likely to jeopardize a listed species or its essential habitat or cause the adverse modification of a Natural Area, the local agency, IDOT, and IDNR will have 45 days in which to attempt to satisfactorily resolve the adverse effects on the listed species/Natural Area. If satisfactory resolution is reached within the 45 day period, IDNR will provide a sign-off indicating compliance with the requirements of the *Illinois Endangered Species Protection Act* and the *Illinois Natural Areas Preservation Act*. If resolution is not reached within the 45 day period, one of the following will occur:
- the consultation process will end and will be classified as having failed or partially failed to protect the resource involved;
 - IDOT and IDNR may decide to elevate the matter within each agency; or
 - upon mutual agreement, negotiations may continue.

When agreement is reached on the satisfactory resolution of adverse impacts to listed species or Natural Areas, IDNR will provide a sign-off to the local agency indicating compliance with threatened and endangered species/Natural Area requirements. The IDNR sign-off for threatened and endangered species/Natural Area requirements is valid for 3 years from the date of issuance. If the project involves other resource concerns requiring further IDNR review, the IDNR will re-screen the project against the Natural Heritage Database prior to any final action confirming satisfactory disposition of the other resource issues. In these cases, the validity period will be reset to extend for 3 years from the date of resolution of the other issues, provided no "Special Circumstances," as described in Item 5 below, apply.

5. Special Circumstances. Consultation will be initiated, or a terminated consultation process will be reopened, if any of the following circumstances apply:
- new information reveals effects of the proposed action that may adversely affect a listed species or its essential habitat or a Natural Area in a manner not previously considered;
 - the proposed action is subsequently modified so that it may adversely affect a listed species or its essential habitat or a Natural Area in a manner which was not considered in the consultation process; or
 - additional listed species or their essential habitat or Natural Areas are identified within the vicinity of the action.

10-1.08 Evaluation of Farmland Conversion Impacts**10-1.08(a) Legal Authority**

The following legal authority regulates or influences the procedures on farmland conversions:

- *Farmland Preservation Act*, 505 ILCS 75;
- Implementing Rules, 8 Ill. Adm. Code 700; and
- State Executive Order No. 4, "Preservation of Illinois Farmland," (1980).

The following documents also influence the procedures on farmland conversions:

- Illinois Department of Transportation, Agriculture Land Preservation Policy; and
- Cooperative Working Agreement between the Illinois Department of Agriculture and the Illinois Department of Transportation regarding Farmland Preservation.

10-1.08(b) Definitions

The following definitions apply:

1. Agricultural Land or Farmland. All land in farms including cropland, hayland, pastureland, forestland, corrals, gardens, and orchards; land used for farmsteads, buildings, barns, and machinery sheds; adjacent yards or corrals, pens, waste lagoons, feedlots, farmstead or feedlot windbreaks, grain bins, lanes for farm residences and fields, field windbreaks, ponds, commercial feedlots, greenhouses, nurseries, broiler facilities, and farm landing strips.
2. Agricultural Land Conversion. The taking of land directly out of agricultural production or displacing it by another use and not returning it to production.
3. Land Class. One of eight classes of land in the Land Capability Classification System (Handbook 210, issued September 1961, and approved for reprinting January, 1973) as developed by the Natural Resource Conservation Service (NRCS), United States Department of Agriculture. Incorporation by reference does not include any future editions or amendments. The land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. The soils are grouped according to their limitations for field crops, the risk of damage to the soil if they are used for crops, and the way they respond to management.
4. Modern Soil Survey. A document published after 1965 by NRCS containing a description of a county's soils, maps showing their distribution, and discussions concerning their behavior and adaptability.

10-1.08(c) Applicability

Coordination with the Illinois Department of Agriculture (IDOA) is required for highway and bridge projects funded in whole or in part with State funds including TBP funds and Federal-aid projects, but not MFT, and which require additional right-of-way, unless any of the following apply:

- The project is located within the boundaries of an incorporated municipality.
- The project is within the official 1.5 mile (2.4 km) planning area of an incorporated municipality. To be an official planning area, the incorporated municipality must have an adopted comprehensive plan on file with the municipal clerk. If a local agency wishes to use the exemption for areas within an official planning area, the local agency must verify and document in the environmental information for the project that the municipality in question has adopted a comprehensive plan addressing the 1.5 mile (2.4 km) planning area and that the plan is on file with the municipal clerk.
- The project is nonlinear (e.g., bridge or intersection improvements) and requires acquisition of no more than 10 acres (4 hectares) of land. When the areas of right-of-way for the project approaches the 10 acre (4 hectare) threshold for coordination and the project will likely involve additional acquisition for borrow or mitigation, the project should be coordinated with IDOA. Anticipated sites for borrow and mitigation should be indicated if known.
- The project is linear; requires acquisition of no more than 3 acres of land per project mile (0.75 ha per project kilometer), area acquisition divided by project length; and does not involve alternative alignment in which the right-of-way diverges from, and is not contiguous to, the existing right-of-way. When the amount of right-of-way for the project approaches the threshold for coordination and the project will likely involve additional acquisition for borrow or mitigation, the project should be coordinated with the IDOA. Anticipated sites for borrow and mitigation should be indicated if known. For projects that include portions both within and outside of the official 1.5 mile (2.4 km) planning area of an incorporated municipality, the portions of the project within the planning area should be excluded for purposes of computing the acres of acquisition per mile (hectares of acquisition per kilometer). If these projects are determined to require coordination, provide figures for the area of proposed acquisition and the length of the improvement both within and outside of the planning area. Only that portion of the project that is located outside of the official 1.5 mile (2.4 km) planning area will be subject to review and comment by IDOA. The information on the portion of the project within the official 1.5 mile (2.4 km) planning area is provided to IDOA for information only.

10-1.08(d) Procedures

The following procedures will apply:

1. General. IDOA is especially interested in projects that consider more than one alignment, each of which has different agricultural impacts and different amounts of

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farmland conversion. Projects with multiple alignments can be as localized as those developed to eliminate offset intersections or as widespread as those for a new freeway connecting distant cities. In all cases, however, only that information which is likely to influence a choice among alternatives should be gathered and considered. For 3R/spot improvements with multiple alignments, soils information should be included when modern soil surveys are available. If modern soil surveys are not available, the remaining coordination information should be forwarded to IDOA. If it is determined that soils information is necessary, IDOA will normally acquire this information.

Where a proposed project will convert farmland to non-farm use, give consideration to measures that could mitigate the scope and impacts of the conversion. In cases where coordination with IDOA is required, this coordination will assist in the identification and evaluation of possible mitigation measures. In all other instances, the local agency should ensure that measures to minimize farmland conversion impacts are appropriately identified and considered.

The local agency will send the project information to:

- Illinois Department of Agriculture,
- Bureau of Land and Water Resources,
- Office of Farmland Protection and Mined Land Reclamation.

When IDOA has completed its review, it will respond in writing to the agency that submitted the information. Early and complete submittals will generally result in a timely response. Should the IDOA response contain substantive comments or raise controversial issues, these comments and issues should be addressed to the extent that the information is available and a response forwarded expeditiously to IDOA. Remaining comments should then be addressed as soon as the necessary information becomes available. Additional follow-up coordination may be required to determine if mutually satisfactory solutions exist prior to assuming an IDOT position at a hearing or in draft and final environmental documents.

The discussions below identify specific procedures for projects involving new construction or reconstruction, and for 3R projects. If coordination with IDOA is necessary and it is unclear whether the project is 3R or reconstruction, the information required for a 3R project should be provided to IDOA as early in project development as practical. When offered an early opportunity to review project information, IDOA can make an initial determination of its degree of interest and request follow-up information, if appropriate, without delaying the project unduly.

2. New Construction or Reconstruction Projects. When coordination with IDOA is required, the timing of the coordination and the information provided is important. When new construction or reconstruction is involved, it is appropriate, shortly after the location study has been initiated, to notify IDOA that a project is being studied and that more detailed information will follow as it is developed. On major projects, it is desirable to

maintain contact with IDOA so that potential problems can be identified early to minimize any delays.

On new construction and reconstruction projects, provide IDOA with the description, purpose, and scope of each proposed project together with the following information for each alternative:

- the location, including proposed right-of-way lines if the scale permits, on all of the following maps:
 - a general county highway map,
 - a plat map, and
 - a modern soil survey map (if available);
- total land area in acres (hectares) required for additional right-of-way, including frontage and access roads;
- the number of acres (hectares) of each USDA Land Capability Classification (Land Classes I - VIII) and Soil Type (including index number) proposed for acquisition, if applicable;
- identification of all soil types occurring within the proposed right-of-way and the number of acres (hectares) of each soil type, if applicable. Note: Land Class and soil type are obtainable from a county's modern soil survey which may be obtained from a local NRCS field office;
- indication of each alternative's conformance with the appropriate zoning ordinance and comprehensive land-use plan (i.e., regional, county, city) regulating the project area, if applicable;
- identification of the following impacts that may be associated with the implementation of the project, as applicable:
 - number of farm units and owners affected;
 - number of farm parcels severed;
 - number of farm unit operations severed;
 - number of landlocked parcels created;
 - miles (kilometers) of adverse travel created for each affected farm unit;
 - effects of the proposal upon existing farm drainage systems (surface and subsurface);
 - acres (hectares) of farmland required for borrow and location of the borrow site (depicted on a soil survey and plat map), if available; and
 - erosion control techniques to be used on the disturbed area during and after project construction;
- a brief discussion of all measures included to mitigate any adverse impacts identified in Items a. through f.; and

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- indication that farmland conversion has been minimized and other appropriate mitigation included for the selected alternative consistent with the operational and safety requirements applicable to the project.
3. 3R Projects. When coordination is necessary and the proposed improvement primarily involves 3R work on existing alignment, it is appropriate, shortly after location and/or environmental studies have been initiated, to notify IDOA that a project is being studied and to provide the following information:
- description, purpose, and scope of the proposed project;
 - map depicting the location of the project, a county highway map is acceptable;
 - total land area in acres (hectares) required for additional right-of-way and a brief description of its nature (e.g., a 10 ft (3 m) strip on north side, a 3 acre (1 hectare) parcel to flatten curve at location noted on map); and
 - indication that farmland conversion has been minimized and other appropriate mitigation included for the selected alternative consistent with the operational and safety requirements applicable to the project.

10-1.09 Special Waste

Special waste screening is required for State-funded projects and is recommended for MFT projects. The procedure is discussed in Section 20-12.

10-2 PROJECT STUDIES/REPORTS

Section 10-2 provides guidance on the preparation of various project studies and reports for local agency MFT- and State-funded projects.

10-2.01 Information Sources

Engineering investigations must determine if the proposed highway improvement satisfies the need for safe, economical, and efficient transportation and provides other relevant benefits (e.g., traffic benefits, public services, reduction of crashes, pedestrian facilities, transit considerations). The following Sections identify informational sources that are important in establishing the need for the highway improvement.

10-2.01(a) Functional Classification

Section 27-3 discusses the application of the functional classification system in Illinois for geometric design applications. All highway improvements must be compatible with the functional classification of the highway under design. A highway's functional classification and highway type are important factors in determining which design policies and criteria to use and for establishing programming priorities for new construction, reconstruction, or 3R-type improvements. *Five Year Classification Maps* are available from the IDOT Office of Planning and Programming.

10-2.01(b) Highway Data Bank

The Office of Planning and Programming (OPP) is responsible for maintaining the Illinois Roadway Information System (IRIS) and Illinois Structure Inventory System. The district can provide computer-generated route log listings for State routes and local roads and streets from OPP. The available data is dependent on the highway system. The following major items may be available:

- administrative classification;
- physical dimensions;
- roadway characteristics;
- traffic data;
- geometric data;
- pavement cross sections, surface type, drainage, and shoulder conditions; and
- bridge inspection and appraisal data.

A complete listing of items is shown in the indices of the *IDOT Roadway Information and Procedure Manual* and the *IDOT Structure Inventory and Procedure Manual*.

10-2.01(c) Current and Projected Traffic Volumes

Under the general guidance of the Office of Planning and Programming, the districts count and classify existing traffic volumes on the State highway system and some local roads and streets. The Office of Planning and Programming also maintains data used to project future traffic volumes (e.g., annual traffic growth factors). The following traffic data may be available from the district:

- current hourly and daily traffic volumes,
- current turning movement volumes,
- traffic projections and assignments for new facilities, and
- traffic projections for future design years on existing facilities.

Similar data, developed in conjunction with the Urban Transportation Planning Process, also may be available from Metropolitan Planning Organizations (MPOs). Because the design of a project is dependent upon the projected design hourly volumes, these figures must be carefully examined and questioned before using for design purposes. Improper traffic projections can result in the construction of unnecessary or inadequate highway improvements.

10-2.01(d) Crash and Skid Reduction Analyses

During the preliminary study, identify High-Accident Locations (HAL), rates, and all crash patterns (e.g., fixed objects) at various sites throughout the project. The Division of Traffic Safety regularly provides crash information upon request. The following is a partial listing of available crash information:

- collision diagram printouts for roads and streets on the local system when the local agency is part of the Local Accident Reference System and for intersections with State highways. Collision diagram computer plots also may be requested for intersections;
- individual crash reports for above locations, upon request from a microfilm or imaging retrieval system;
- State highway HAL maps and computer-generated listings that report supplemental data for high-crash spots and roadway sections;
- county crash summaries;
- municipal crash summaries;
- Statewide average crash rates, distributed annually for comparison with existing project crash rates for proposed improvement justification;

- summaries of Motor Vehicle Traffic Crashes and Statewide average percentages by type of collision, light condition, and road surface. These percentages may be compared with project percentages from collision diagram summary sheets to help identify over-represented crash patterns.

10-2.01(e) Airport Coordination

Highway and bridge improvements within 2 miles (3.2 km) of publicly owned airports, within 1 mile (1.6 km) of privately owned airports open to the public, and within 0.5 miles (0.8 km) of restricted-landing areas require coordination with the IDOT Division of Aeronautics. These coordination requirements concerning distance to an airport are in conjunction with height obstructions of 15 ft (4.6 m) or more above the roadway. In addition, the local agency must coordinate with the Division of Aeronautics for all realignments and construction improvements on new location regardless of the height of obstruction.

For those airports that are publicly owned, coordination with the Federal Aviation Administration (FAA) is required. Contact the Division of Aeronautics prior to communicating with the FAA.

Airport clearance requirements could affect the controlling elevations and locations of pavements and structures. Discuss the necessary construction equipment (e.g., cranes, pile drivers) and highway appurtenances (e.g., signs, lighting, traffic signals, utility poles) that might affect airspace clearances. During the project's development, also contact the local airport authorities to ascertain that any proposed airport expansion plans will not cause the highway improvement to conflict with future airspace clearances. Any required vertical clearance permits must be obtained prior to PS&E approval. Airspace clearances are defined by the Division of Aeronautics in Title 92 Ill. Adm. Code, Part 14, Aviation Safety.

10-2.01(f) Railroad Coordination

When a project is involved with a railroad grade crossing or separation, coordination with the affected railroad should take place at an early stage to determine if any improvement is necessary to the railroad facility and to determine funding responsibilities for the improvement. Before the railroad work can begin, it will be necessary to prepare a railroad agreement or to obtain the approval of the Illinois Commerce Commission (ICC).

Section 5-7 discusses when a railroad agreement is required, the agreement format, and the procedures for preparing and executing the agreement. Section 5-7.06 also provides guidance on petitions before the ICC and ICC Stipulated Agreements

During preliminary engineering, the following will occur:

1. General. In most instances, the local agency is responsible for the preparation of the plans for new construction, modernization, or reconstruction of highway structures,

drainage facilities, and the approaches. Occasionally, the railroad will prepare plans for a structure carrying the railroad over a local highway.

All plans, specifications, and special provisions prepared by either the local agency or the railroad are subject to approval by the other party, and no changes will be allowed by either party without the consent in writing of the other party.

2. Railroad Structures Designed By or For the Railroad. This applies to a railroad structure over a local highway or street. When the railroad elects not to perform the structure design with its own forces and the local agency does not have the forces available to perform the design within the required schedule, a consultant may be employed to perform the design. Ordinarily, the local agency will select a suitable consultant from a list of consultants approved by the railroad. The design work is then performed by agreement between the local agency and the consultant with the railroad's approval.

In certain cases, where justified, the railroad will select a consultant to design the structure and enter into an agreement with the consultant for the design. The selection of the consultant and the terms, including the fee, is subject to the local agency's approval.

In those projects where Federal-aid funds are anticipated for reimbursing the railroad's consultant for the cost of preparing the plans for a structure, the preliminary engineering cost must be programmed before IDOT can authorize the preparation of these plans.

3. Preliminary Engineering Portion of Railroad Force Account Work. The railroad will generally perform the preliminary engineering with its own forces for the railroad force account work covered by construction agreements between the local agency and the railroad.

In special instances (particularly warning device system design), the railroad may use the services of a consultant retained by the railroad to perform the preliminary engineering.

10-2.02 Intersection Design Studies

10-2.02(a) General

An intersection design study (IDS) is a graphic representation of a proposed treatment for the development or improvement of an intersection facility. It is based on an analysis of traffic needs and an evaluation of physical and economic elements at the intersection site. Chapter 34 provides the design criteria for intersections.

The local agency will be required to prepare an IDS for intersections if any of the following conditions apply:

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- in a rural area when both roads have a current 30th maximum design hourly volume (DHV) of 300 vehicles or more;
- in a rural area when a local road with a current DHV of 300 or more intersects a State marked route;
- in an urban area when both streets have a current DHV of 400 vehicles or more;
- in an urban area when a local street with a current DHV of 400 or more intersects a State marked route;
- when additional lanes and/or channelization is proposed on one or both routes; or
- any intersection designed as a roundabout.

The above conditions also apply to an intersection at the terminus of a project.

Chapter 14 of the *BDE Manual* provides guidelines for the preparation of an IDS and the data that is required to be documented. The designer should also consider the following:

- If an existing intersection would normally require an IDS, but it is found to be adequate for the design year traffic, a capacity analysis is considered adequate.
- For any intersection where additional turning lanes or channelization are proposed and traffic volumes are less than those shown above, a capacity analysis will not normally be required.
- For warrants on traffic signals, see Chapter 39.

10-2.02(b) Processing

IDS's for MFT- and State-funded projects will be reviewed and approved by the district. They may be submitted to the Central BLRS when the district determines that the Central BLRS review is desirable. For intersections with State highways, the District Geometric Engineer will review the design to the extent appropriate and obtain any approvals of exceptions to geometric policy affecting the State highway from BDE before concurring with the design.

10-2.03 Bridge Condition/Hydraulic Reports

10-2.03(a) Bridge Condition Report

The Bridge Condition Report (BCR) summarizes the findings of the investigation of a bridge and its components. It is used to establish the scope of work on the extent of repair, replacement (partial or total), and widening or other improvements. The BCR allows the local agency and IDOT to determine the most cost-effective method of correcting the reported structural, geometric, or hydraulic deficiencies and for restoring a bridge to a structurally adequate and functionally serviceable condition.

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A BCR is not required for total structure replacement for projects using non-Federal funding.

A BCR is required for all rehabilitation and widening projects for which a Preliminary Bridge Design and Hydraulic Report (PBDHR) must be submitted for IDOT approval. This includes not only projects using MFT or State funds, but also bridges of length greater than 30 ft (9 m) under county or township jurisdiction using non-MFT funds. All rehabilitation and widening projects require an in-depth report including color photos. The following items are necessary for an in-depth report:

1. Introduction. The introduction should provide the reason for the report.
2. Administrative and Geographical Information. The report should include detailed administrative and geographical information (e.g., facility carried, feature crossed, age of bridge).
3. Inspection Information. Include what type of inspection was performed (e.g., visual, testing type, equipment), results of inspection, degree of impairment to structure, and any structural deficiencies.
4. Description. The report should include a description of the physical condition of the bridge and the deficiencies that require correction.
5. Verification. The ability and capacity of the existing structure for reuse should be verified and documented.
6. Recommendations. Note all recommended repairs and any methods of repair.
7. Justification. Provide justification for any proposed work.
8. Photos. Include color photos of deficient areas.
9. Master Structure Report (S-107). This report is output from the Structure Information Management System (SIMS). The current S-107 should also be included with the PBDHR.

For structures on 3R projects that do not require any rehabilitation, provide a description of the structures as described in the Master Structure Report. These structures should be in good condition. A formal BCR will not be required for these structures.

When the scope of the anticipated rehabilitation work is limited to the bridge deck and minor structural repairs (without need for a widening or replacement), only the preparation of a Bridge Condition Report for Deck Repair is required. Because the geometrics of the structure will not be altered, this type of work normally will not require a Type, Size, and Location (TS&L) submittal as discussed in Section 10-2.03(b).

Submit the BCR to the district. The district will forward the BCR to the Local Bridge Unit in the Bureau of Bridges and Structures for review and approval. The BCR must be approved prior to or with the approval of the Preliminary Bridge Design and Hydraulic Report.

10-2.03(b) Preliminary Bridge Design and Hydraulic Report

The Preliminary Bridge Design and Hydraulic Report (PBDHR) contains the necessary information for use by IDOT personnel to review the preliminary bridge design and hydraulics for local agency bridge and culvert construction projects, and for obtaining construction permits from the IDNR Office of Water Resources (OWR). Submittal of a PBDHR to IDOT is required when a permit is to be issued and for all structures except for the following exempt categories:

- structures having a clear span of 10 ft (3 m) or less, or a waterway opening of 100 ft² (9 m²) or less (including over-the-road flow) for the design flood; or
- structures for which the preliminary design has been prepared by IDOT.

For most typical rural stream crossings, a completed Form BLR 10210 with attachments, including the plan and profile sheet, hydraulic/hydrologic analysis/calculations, foundation borings/soil report, Asbestos Determination Certification (Form BLR 10220) and hydraulic certification statement or joint application form as applicable, etc., should provide sufficient information for IDOT to review and approve proposed projects. However, detailed Type, Size, and Location (TS&L) drawings must be prepared and submitted as part of the PBDHR for projects that have at least one of the conditions listed below:

- structures carrying or crossing an Interstate highway or a roadway under the jurisdiction of the State of Illinois,
- bridges over roadways or railroads,
- urban structures,
- structures having a clear span of 100 ft (30 m) or greater,
- projects funded with major bridge funds,
- unusual or complex structures, or
- structures designed by IDOT.

The following information and/or forms should be included with the PBDHR as applicable:

1. Stream Crossings. For most rural stream crossings, a completed Form BLR 10210 with attachments should provide sufficient information for IDOT personnel to review and approve preliminary bridge designs.
2. Foundation Borings. Foundation borings are required following the procedures in the *BMPR Geotechnical Manual*. Record the boring data for all structures and reinforced

concrete box culverts on the Foundation Boring Log (Form BD-137), or similar form. Include this data as part of the Form BLR 10210 submission.

3. Type, Size, and Location (TS&L) Plans. TS&L drawings are detailed bridge configuration plans that are used as the basis for the development of construction plans. They must be prepared and submitted as part of the PBDHR for projects that have at least one of the following conditions:
- structures over roadways or railroads,
 - urban structures,
 - structures having a clear span of 100 ft (30 m) or greater,
 - projects funded as part of the Illinois Major Bridge Program, and
 - unusual or complex structures.
4. Certification Statements. The certification statements included with the Hydraulic Reports submitted to IDOT should reference the *IDOT Drainage Manual* as the publication providing the policies and procedures for determining hydraulic adequacy. See Section 7-2 for permitting and certification requirements for those structure requiring an OWR permit.

The information below is provided for approval requirements for those structures not requiring an IDNR construction permit:

- a. Structures for Drainage Areas Not Requiring a Permit. This is applicable for structures in rural areas with drainage areas less than 10 mi² (26 km²) and for structures in urban areas with drainage areas less than 1 mi² (2.6 km²). The following certification statement should be included with the PBDHR submittal:

I hereby certify that the waterway opening for the proposed structure has been designed using hydrologic and hydraulic engineering methods in accordance with the policies and procedures presented in the Drainage Manual of the Illinois Department of Transportation.

P.E. Seal (with date of expiration) (Signature): _____ Date: _____

- b. Superstructure Replacements Not Requiring a Permit. The PBDHR submitted to the BBS for a superstructure replacement project should contain a certification statement that the existing structure has not been the cause of “demonstrable flood damage,” similar to the certification statement for Statewide Permit 12 provided in Section 7-2. When using this certification, the engineer should

consider the structural and hydraulic adequacy of the structure to remain, including scour.

If the municipal or county engineer cannot provide the certification statement for flood damage, a complete hydrologic and hydraulic analysis is required to verify the hydraulic adequacy of the existing waterway opening, and the following certification statement should be included with the report.

I hereby certify that the waterway opening for the existing/proposed structure has been analyzed and evaluated using hydrologic and hydraulic engineering methods in accordance with the policies and procedures presented in the Drainage Manual of the Illinois Department of Transportation.

P.E. Seal (with date of expiration) (Signature): _____ Date: _____

When making this certification, the engineer is acknowledging that the “design risk assessment process” has been performed as described in the *IDOT Drainage Manual*.

- c. Maintenance/Rehabilitation Exceptions. The current policy of the IDNR Office of Water Resources does not require a construction permit for projects considered to be maintenance. Maintenance includes repair or replacement of the superstructure (provided the waterway opening is not reduced by more than 10%), widening or resurfacing, minor dredging to restore the waterway opening to the original cross section design, and culvert extensions of up to 100%, but not exceeding 40 ft (12 m) in length (i.e., culvert extension of up to 40 ft (12 m) on an existing 40 ft (12 m) culvert.

However, IDOT does require that the hydraulic adequacy of the existing waterway opening be investigated to approve the PBDHR for certain projects. These include projects that involve use of Federal or State funds, or for locally funded projects when the clear span is greater than 30 ft (9 m).

Projects involving the total removal of an existing superstructure and the construction of a new superstructure on the existing substructure units, and culvert extensions as noted above, require hydraulic submittals.

The hydraulic submission should include the existing and proposed design and 100 year hydraulic openings and elevations, and must be sufficient to evaluate the impacts of scour on the existing substructure to remain (for bridges). The supporting data should be included and a certification statement included that the existing structure has not been the cause of “demonstrable flood damage,” use the certification statement for Statewide Permit 12 provided in Section 7-2.

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5. Review. Submit the PBDHR to the district for transmittal to BBS for review and approval.

If a PBDHR is required, then the Local Bridge Unit within the BBS will be responsible for coordinating and obtaining approval for any water resources permits. The local agency is responsible for preparing all other permits. For additional guidance on permits, see Chapter 7.

10-2.04 Drainage Studies

The roadway alignment is dependent upon the interrelationships of several variables. High-water elevations and the depth of roadway ditch flow for surface drainage directly influence the gradeline. Hydraulic structure sizes and storm sewer systems may significantly affect project cost estimates. For these and other reasons associated with drainage controls, a drainage study containing preliminary hydrologic and hydraulic analyses should be prepared where highway drainage and/or structures will significantly affect the design or cost of a project. A drainage study is an investigation of the existing and proposed drainage patterns that affect a section of roadway. Drainage studies are discussed in more detail in the *BBS Drainage Manual*. See Chapter 38 for drainage design guidelines.

The district may request that a drainage study be submitted for review when a concern about the adequacy of a drainage feature is identified during review of the plans.

10-2.05 Geotechnical Report

The purpose for a Geotechnical Report is to provide insight into area geology, pedology, and other engineering factors to be used by the designer. If soil stability problems are anticipated, a preliminary Geotechnical Report should be prepared during the preliminary study phase. Information on the geotechnical reports can be found in the *IDOT Geotechnical Manual*. While a final pavement design is usually not needed until plan preparation, a determination of pavement type and approximate thickness may be needed during the preliminary study phase. Chapter 37 discusses pavement design procedures and when a Geotechnical Report is required.

10-2.06 Commitments

A commitment is a documented obligation or promise made by a properly authorized representative of the local agency for carrying out a specific action or actions affecting the planning, design, land acquisition, construction, or operation of a highway project that involves special consideration and action. A commitment file must be kept for all State-funded local projects and is recommended for MFT projects. Section 22-2.09 provides additional information concerning the recording of commitments. When applicable, note the commitments in the project agreements and contract documents. The commitment list is to be included with the plan submittal to the district. If the local agency is under an MFT Memorandum of

Understanding, the local agency is responsible for providing the district with a copy of their commitment file at the same time as the rest of the project file is submitted.

10-2.07 Design Criteria**10-2.07(a) General**

Design criteria for MFT- and State-funded projects can be found in Part IV of this *Manual*. Use Form BLR 22120 to document the adherence of the proposed project to the BLRS design criteria. For those agencies without a licensed professional engineer on staff, the entire form must be fully completed and submitted to the district prior to submittal of the plans.

10-2.07(b) Design Variances

In general, the designer is responsible for making a reasonable effort to meet the design criteria presented in this *Manual*. However, recognizing that this will not always be practical or cost effective, Section 27-7 discusses the evaluation of variances to the geometric design criteria.

Form BLR 22120 is also used to document the justification and approval of variances that are necessary for the completion of the project. The form must be fully completed by those local agencies without a licensed professional engineer on staff. Local agencies with a licensed PE on staff will only need to complete page one of the form and those portions of the form where a design variance from a specific design criterion is being requested.

Requests for variances should be submitted in writing to the district. A written response will then be sent to the local agency.

Local agencies operating under a Memorandum of Understanding will be allowed to determine the acceptability of Level Two design variances without district approval. A copy of the form should be kept in the local agency's project file.

10-3 RIGHT-OF-WAY

The procedures for the acquisition of right-of-way by a local agency are flexible but should adequately address all significant concerns based on the specific situation. This Section presents a general overview of right-of-way issues for local agencies.

10-3.01 Interest to be Acquired

10-3.01(a) Fee Title and Lesser Interests

Local agencies may expend MFT funds to acquire fee title or such lesser interest as may be desired, to any land, rights, or other property necessary for highway purposes by purchase or through eminent domain. Normally, fee title is acquired for all right-of-way within the proposed right-of-way line, except when it is considered more economical or feasible to acquire a permanent easement.

10-3.01(b) Permanent Easement

Permanent easements are obtained outside the proposed highway right-of-way lines to cover the construction and/or installation of appurtenant highway facilities that are considered permanent. The installation of outfall storm sewers, riprapping of stream channels, or channel changes are examples that may require future entry for maintenance.

10-3.01(c) Temporary Construction Easement

Temporary construction easements are grants of an estate or interest in the land and are irrevocable. Ensure that the easements are recorded. They are transferred with the sale of the land. Acquisition of temporary construction easements should be accomplished in the same manner as the acquisition of a fee acquisition or a permanent easement. Obtain temporary construction easements where the specified use is essential to the completion of a project and future entry is not necessary. Examples for when a temporary construction easement may be necessary are detour roads; borrow pits (owned or furnished by the local agency), removal of the remainder of buildings located partially on acquired right-of-way, or channel changes requiring no future maintenance by the local agency.

10-3.01(d) Temporary Use Permit and Right-of-Entry

A temporary use permit and right-of-entry is a term used to describe a license giving permission to a local agency to do a particular act or series of acts on the land of another without possessing any estate or interest in the land. A license with respect to real property does not usually continue with the sale of the land and may be terminated in various ways. Consequently, the acquisition of temporary use permits should be confined to particular areas of construction (e.g., sloping of lawns, extending back slope beyond the right-of-way lines,

reconstruction of driveways) where a nominal amount of money is involved, the probability of termination is minimal, and the effect of termination would not jeopardize completion of the project.

10-3.01(e) Right-of-Way Donations

Right-of-way for MFT projects may be secured through right-of-way donations. Ensure the landowner has been informed of their right to receive just compensation. However, in the case of donations, it is not necessary to appraise the property or to offer compensation.

10-3.01(f) Acquisition of Railroad Property

When the local agency requires property interest from a railroad to complete a highway improvement, sufficient lead time to acquire these interests is essential. It is critical that once it is determined that a project will require the acquisition of property owned or under the control of a railroad that the Central BLRS be informed. The following will apply:

1. Acquisition of Railroad Non-Operating Property. The acquisition of non-operating railroad property is accomplished in the same manner as any other acquisition of property for a highway improvement.
2. Acquisition of Railroad Operating Property. Where a proposed highway improvement will cross or longitudinally use a railroad's operating property, the local agency generally will acquire a permanent easement to construct and maintain the improvement. There will be instances when a highway project will require only the temporary use of railroad property. When this situation occurs, permission to do work of a temporary nature on railroad right-of-way will be included in the construction and maintenance agreements between the local agency and the railroad.

The railroad is responsible for executing the necessary documents to cover the rights or interests required for the highway project according to the criteria in the *IDOT Land Acquisition Policies and Procedures Manual*, regardless of whether or not it owns the fee title or easement. The *IDOT Land Acquisition Policies and Procedures Manual* provides the procedure to be used if condemnation is necessary. However, note that permission of the Illinois Commerce Commission is a prerequisite to the filing of the complaint for condemnation and motion for the right of immediate possession and the time required must be considered when scheduling the project.

10-3.02 Right-of-Way Statement

Local agency projects built under the supervision of IDOT should not be advertised for letting until the necessary right-of-way has been secured. Material awards for day labor projects should not be made until the necessary right-of-way for construction has been secured.

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Authorization for the expenditure of MFT funds for day labor materials or work will not be given to the local agency until the right-of-way is clear. As soon as the right-of-way has been secured, the appropriate local agency official (e.g., county engineer, highway commissioner, city engineer, municipal official) is responsible for submitting a statement to that effect to the district.

10-3.03 Right-of-Way for a State Highway

If the right-of-way is to be acquired for work on a State highway, it is necessary for the local agency to follow IDOT's procedures for land acquisition. These policies are contained in the *IDOT Land Acquisition Policy and Procedure Manual* prepared by the Bureau of Land Acquisition.

10-3.04 Right-of-Way Procedures Versus Funding Type

If there is a possibility that an MFT-funded project may be changed to a Federally funded project, ensure that the Federal procedures for land acquisition are followed; see Section 22-3. If proper procedures are not followed, the project may not be eligible for Federal funding.

10-3.05 Right-of-Way Markers

Right-of-way markers are required on all county improvements; their use is optional on township and municipal improvements.

10-4 UTILITY COORDINATION**10-4.01 Definition**

A utility is defined as a privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water not connected with highway drainage, or any other similar commodity. This includes any fire or police signal system or street lighting system, which directly or indirectly serves the public. The term utility also applies to a utility company inclusive of any wholly owned or controlled subsidiary. The term utility includes those facilities used solely by the utility that are a part of its operating plant.

10-4.02 Plan Preparation and Field Location of Utilities

In general, it will be the responsibility of the planner and designer to attempt to locate, identify, and, to the maximum extent practical, avoid disturbance, or to provide for the relocation of all existing identified utilities. Send a copy of the preliminary plans to all affected utility companies.

In the design plans, show the type and nature of all utility facilities (mains and services) located within the limits of the right-of-way and indicate all owners, their addresses, and list the Joint Utility Locating Information for Contractors (JULIE) phone number (800-892-0123).

Show the utilities with the appropriate symbols. For guidance, see the *IDOT Highway Standards* and *IDOT CADD Manual*. The vertical and horizontal location of utilities, to be relocated or adjusted by their owners, need not be exact. However, if the utility is to remain in place or be relocated or adjusted by the contractor, vertical and horizontal dimensions must be shown to the accuracy provided by the utility owner.

The BLRS special provision LR-102 provides that the contractor is responsible for requesting utility owners to field locate and stake their facilities, showing the vertical and horizontal alignment, prior to construction or as the contract may agree with the owners of the utilities. A letter from the utility owner that the dimensions and location on the construction plans are correct will be acceptable in lieu of field staking.

In the event a utility owner fails or refuses to stake the utility or provide a written statement to the contractor, the Engineer is to authorize the contractor to locate the facility with payment made in accordance with the *IDOT Standard Specifications*. In the event that utility is located on right-of-way by permit, the cost of locating the utility should be at the utility owner's expense.

10-4.03 Estimates and Final Bills for Moving or Removing Utilities

Utility agreements are necessary when an improvement requires relocation or adjustment of utility appurtenances, except when existing permits provide for moving or removing a utility. Section 5-8 provides guidance on the preparation of a utility agreement.

In preparing the cost estimate, consider the following:

3. District Review. The district must review and approve the cost estimate for the work before the work is started. When only MFT funds are involved and the total cost of the utility adjustment is less than \$5,000, neither an estimate of cost nor an audit of the final bill will be required.
4. Additional Information. Indicate the age of the existing facility on the cost estimate. Include a staking diagram that shows the existing and proposed right-of-way lines.
5. Cost Details. Include the applicable items from the following list in the cost estimate:
 - a. cost of labor for moving or removing existing utility,
 - b. equipment expense for moving or removing existing utility,
 - c. cost of labor for installation,
 - d. equipment expense for installation,
 - e. cost of new material necessary for installation,
 - f. credit for extended service life,
 - g. engineering and overhead costs,
 - h. credit for betterments not required by road construction, and/or
 - i. material salvage from existing utility.

Provide a detailed estimate for Items 3a through 3e, 3h, and 3i showing the number of hours, rate, kind of equipment, items of material, etc. For Items 3f and 3g, provide detailed computations.

6. Labor Rates and Equipment Rental Rates. Indicate the labor rates and equipment rental rates used to determine the cost estimate.
7. Extended Service Life. Calculate the credit for extended service life (Item 3f.) as follows:

$$\text{Credit} = \frac{\text{Expired Service Life of Replaced Facility}}{\text{Total Estimated Service Life of Replaced Facility}} \times \text{Original Cost}$$

Where:

Expired Service Life of Replaced Facility = the number of years that the particular facility has been in service.

Total Estimated Service Life of Replaced Facility = the sum of the period of actual use plus the period of expectant remaining life.

Original Cost = the original cost of the facility being replaced.

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8. Depreciation. In some instances where the facility is still in operation but has been fully depreciated by the utility company, the interested parties, by mutual agreement, need to reestablish the expectant remaining life of the replaced facility.
9. Public/Private Property. In the event that portions of a facility to be adjusted are on both private and public right-of-way, proportion the final cost between that on private property and that on public property in the same relations that the dollar values for each bear to the approved estimate.

Where the utility company elects to construct an entirely new facility and retire (remove) the existing utility, include Items 3c, 3d, 3e, 3f, 3g, and 3h in the estimate. If only a portion of the existing facility is to be removed, use Items 3a, 3b, 3g, and 3i for that portion of the work. Item 3f may be omitted if the facility involves only a utility line crossing of the highway, or a segment of a utility line that is less than 1 mile (1.6 km) in length, provided the replacement facility for the segment is not of greater functional capacity or capability than the one it replaces, and includes no betterments.

Where the utility company elects to move the existing facility and replacement material is unfit for reuse, include Items 3b, 3e, 3g, and 3i in the estimate.

If desired, reimbursement to the utility company may be made on an agreed lump-sum basis, for adjustment work estimated to cost less than \$25,000. Also, a detailed final bill will not be required. When the reimbursement is on a lump-sum basis, include with the estimate of cost a statement, signed by the proper utility official, indicating concurrence in the estimated cost as the figure for which the reimbursement is to be made.

The expenditure of MFT funds may be authorized by the local agency for the full amount of the utility adjustment estimates at the time the estimates are approved. To facilitate payment, the local agency should submit a Request for Expenditure (Form BLR 09150) with the estimate to the district.

In approving the estimate of cost and auditing of the final bill, IDOT will be governed by the policies set forth by the FHWA and Chapter 15.

